

Abstract

A device for thickening or dehydrating sludges, sediments from waters or the like, particularly excess sludges in sewage treatment plants, having the following features: a double-start threaded or multiple-start threaded eccentric screw pump having a pump shaft at one end and a suction duct connection for thin sludge at the other end, a drive mechanism coupled to the driving shaft, a feeding means arranged between the eccentric screw pump and the drive mechanism which is driven by the drive mechanism and is arranged in an elongate casing which is extended through by the pump shaft, with a separating device being provided in the form of a cylindrical-shaped screen in the casing to separate the sludge and liquid, a filtrate discharge outlet at the upstream side of the cylindrical-shaped screen and a thickened-sludge discharge outlet at the downstream side of the cylindrical-shaped screen, a flocculant supply device which is connected to the suction duct connection of the eccentric screw pump and/or the area which connects between the eccentric screw pump and the cylindrical-shaped screen, wherein the cylindrical-shaped screen is rotatably supported about its axis and is adapted to be rotatably driven by the drive mechanism, and wherein the cylindrical-shaped screen has feeding elements on the inside wall to deliver the sludge towards the thickened-sludge discharge outlet.